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California Postsecondary Education Commission

Moving the Goalposts The Potential Effects of Changes in the University of California's Eligibility Requirements

The University of California is changing its eligibility requirements to bring the proportion of high school graduates eligible for admission closer to the figure recommended in the state's Master Plan for Higher Education.

The Commission examined three scenarios for tightening eligibility requirements and found that any changes are likely to have a disproportionate impact on African American and Latino graduates.

This is one of a series of Commission reports on eligibility issues. A future report will examine the effect of changes in the California State University's eligibility requirements.

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The Commission advises the Governor and Legislature on higher education policy and fiscal issues. Its primary focus is to ensure that the state's educational resources are used effectively to provide Californians with postsecondary education opportunities. More information about the Commission is available at www.cpec.ca.gov.

Commission Report 04-18

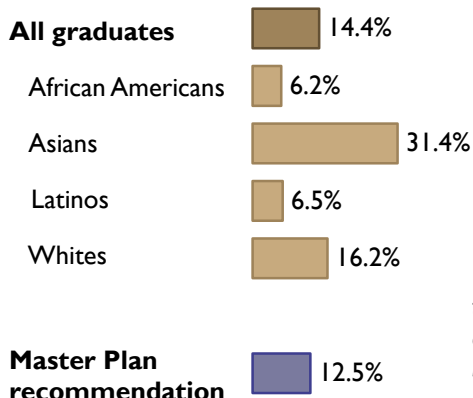
Executive Summary

The California Postsecondary Education Commission's most recent University Eligibility Study found that the proportion of high school graduates eligible for the University of California has increased in recent years. In 2003, 14.4% of California public high school graduates met the University's eligibility requirements, up from 11.1% in 1996.

The University has a long-standing practice of setting its eligibility requirements so that the top 12.5% of public high school graduates are eligible for admission. This figure is based on a recommendation in the state's 1960 Master Plan for Higher Education. Since the Commission's Eligibility Study was released in May 2004, the University has tightened its requirements in an effort to bring its eligibility rate closer to the Master Plan recommendation (see page 4).

The effect of these changes on African American and Latino graduates is a major concern. Eligibility rates for these graduates are very low, and they continue to be underrepresented at the University. To

Eligibility Rates from the 2003 Study



The overall rate is higher than the Master Plan recommendation, but rates differ widely between ethnic groups

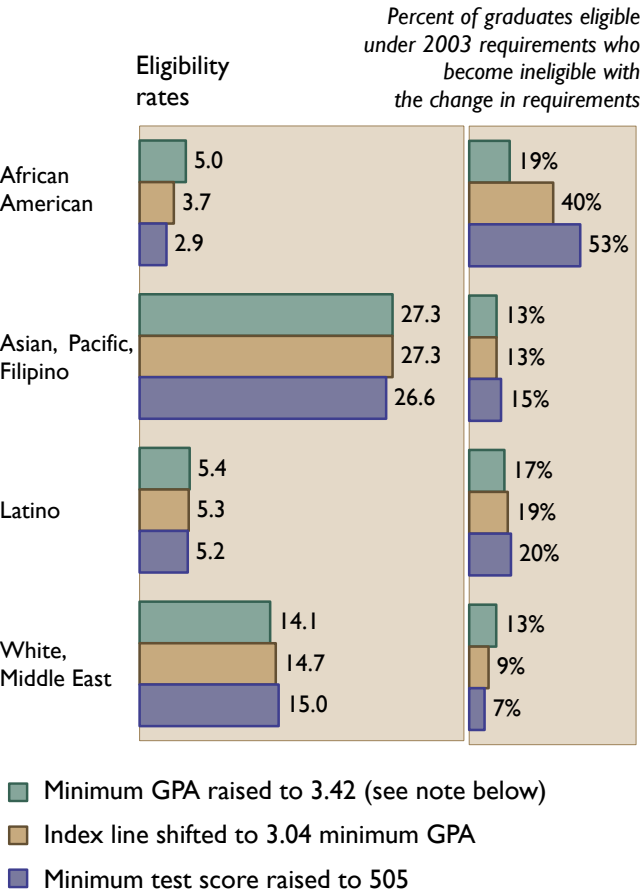
show how different components of the University’s eligibility requirements affect the eligibility pool, the Commission examined three scenarios for tightening eligibility requirements. Raising the minimum GPA requirement has the least impact on African Americans and Latinos, but this change would still mean that nearly 20 percent of those eligible under the 2003 requirements would lose their eligibility. Other ways of changing eligibility requirements would reduce the eligibility of African American and Latino graduates even more.

These findings show that it will be difficult to bring eligibility closer to the Master Plan guideline without disproportionately affecting African Americans and Latino graduates. Eligibility rates for these graduates have improved since the Commission’s last Eligibility Study in 1996, but changes to the University’s admission requirements are likely to reduce some of the gains of recent years.

There is no easy way of avoiding these setbacks. The University could move away from the Master Plan recommendation and set its requirements so that more than 12.5% of high school graduates are eligible. This approach would require that the state provide funding for the enrollment levels that would follow from a higher eligibility rate. An alternative is to increase the number of African American and

Latino graduates meeting the University’s more stringent requirements. This would require significant investment in improving schools in the poorest areas in the state.

Eligibility rates under different scenarios
Changes in requirements that reduce the rate for all graduates to 12.5%



Without any other changes, the minimum GPA must be raised to 3.42 to cut the overall eligibility rate to 12.5%. The University recently raised the minimum GPA to 3.0, but combined this with other changes, including a change in the way that the GPA is calculated.

Any action to maintain access to the University of California will be costly. However, unless qualified students from all backgrounds have the opportunity to attend the state’s most sought-after public university system, California is likely to become an increasingly divided society.

The Commission’s analysis

The Commission compared the effects of three scenarios for making eligibility requirements more stringent: (1) raising the minimum GPA required for admission, (2) raising test scores, and (3) shifting the entire eligibility Index Line by raising both the minimum grades and test scores required.

Raising the GPA requirement would have the most moderate variation in impacts on different ethnic groups. When the GPA is raised to cut the overall eligibility rate to 12.5%, about 19% of African American graduates and 17% of Latino graduates who were eligible under the 2003 requirements would become ineligible (see graph left). Impacts on Asian and White graduates are much lower, with 13% of these graduates losing their eligibility.

Limiting eligibility by raising the minimum test score required would affect the eligibility pool very differently. African Americans would be affected severely, with over half of those eligible in 2003 becoming ineligible. In contrast, only 7% of White graduates would lose their eligibility under this scenario. Shift-

ing the entire eligibility Index Line is a middle ground, but would still widen the eligibility gap between racial and ethnic groups.

Implications

Any changes in the University's eligibility requirements are likely to affect African American and Latino graduates much more than other racial and ethnic groups. In the changes made recently, the University has emphasized grades, rather than test scores. In September 2004, the University raised the minimum GPA requirement from 2.8 to 3.0. A more significant change was made in July 2004, when UC switched from a *best-of-pattern* GPA to an *all-courses* GPA for determining eligibility (see table, below). The University's analysis is consistent with Commission's results showing that raising the GPA has less impact on African Americans and Latinos than other ways of tightening requirements.

Although raising the GPA has the least effect on underrepresented groups, this approach is not without its problems. The change to the all-courses GPA combined with the increase from 2.8 to 3.0 is a significant change. The Commission's analysis of the eligibility study data shows that by itself, switching to an all-courses GPA has the same effect as raising the best-of-pattern GPA by nearly half a grade. The recent changes could be a barrier for students with lower grades and do not allow them to compensate by doing well on tests. The 2003 study sample included a significant number of Asians with low GPAs, but very good test scores, who could be shut out of the University by these changes.

Raising the GPA requirement without raising the test score requirement means that students with marginal grades but good test scores will become ineligible, while students with better grades but marginal test scores will generally remain eligible. This approach reduces the importance of test scores relative to grades in determining eligibility. However, UC research and national data show that performance at high school is the strongest predictor of a student's success at the University.

A valid concern is that students from poorer homes and low-performing schools tend not to have the opportunity for a high school education that prepares them well for university work. Designing eligibility requirements around these limitations can only go so far in broadening access to the University. In the long run, it is essential to make the investment in schools so that students from all backgrounds can become competitive applicants for University admission.

Impact of changes made by UC

Eligibility rate under 2003 requirements	14.4%
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Reduction resulting from ...

More restrictive conditions for ELC students	0.9%
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Change from a <i>best-of-pattern</i> GPA to an <i>all-courses</i> GPA	0.5%
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Increase in GPA from 2.8 to 3.0	0.2%
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New eligibility rate	12.8%
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Impacts estimated by UC. More details of the changes are in *Recent changes to eligibility requirements* on page 4.

The Master Plan

The University of California's eligibility requirements are based on recommendations in the 1960 Master Plan for Higher Education (see *References*, page 17).

The Master Plan was prepared in anticipation of the growth in demand for higher education expected in the 1960s and 1970s. The plan recommended a strategy for the expansion of the University of California and the development of the California State University and the Community College systems.

The Master Plan designated the educational missions of the three systems and recommended that UC become a more selective system, taking its freshmen from the top 12.5% of California public high school graduates.

After the Master Plan was completed, UC adopted admission requirements that made 12.5% of high school graduates eligible. UC has periodically adjusted requirements to keep its eligibility rate in line with the Master Plan recommendation.

The University has a policy of admitting all eligible applicants to a program at some campus in the system. Typically 7–8% of public high school graduates actually enroll at the University and the state has been willing to provide funding for this level of enrollment.

Recent changes to eligibility requirements

The University of California has responded to the 2003 Eligibility Study by making its eligibility requirements more stringent.

In July 2004, the Board of Regents approved two changes in UC's eligibility requirements. These changes will be effective for students entering in Fall 2005.

First, students identified as *Eligible in the Local Context* (ELC) will be required to complete the course pattern and take the tests required of other applicants.

Second, for students seeking *Eligibility in the Statewide Context*, UC will change the method used to calculate GPA. Until 2004, UC used a *best-of-pattern* GPA, based on the applicant's best grades in the courses meeting the *a–g* requirements. When an applicant took more *a–g* courses than needed to meet the coursework requirement, poorer grades could be omitted from the calculation. UC will use an *all-courses* GPA, in which all grades in *a–g* courses taken in the 10th and 11th grades are to be used in the calculation.

UC's analysis (see *References*) shows that these changes will cut the UC eligibility rate from 14.4% to 13%. Most of this change is the result of the more restrictive conditions for ELC students. By itself, the change to an all-courses GPA reduces the eligibility rate by an estimated 0.5 of a percentage point.

In September 2004, the Regents approved raising the minimum GPA from 2.8 to 3.0. This change, effective for students entering in Fall 2007, is expected to reduce UC's eligibility rate by a further 0.2 of a percentage point to 12.8%.

Adjusting eligibility requirements

UC has three paths to eligibility. To be statewide eligible, or *Eligible in the Statewide Context* (ESC), an applicant must have completed a required pattern of high school courses with a sufficiently high grade point average (GPA) and have achieved a qualifying score on college admission tests. Students in the top 4% of their high school class are *Eligible in the Local Context* (ELC), provided they meet certain requirements. Graduates without the required courses and grades can be *Eligible by Examination Alone*. More details are in *UC's Paths to Eligibility* on page 8.

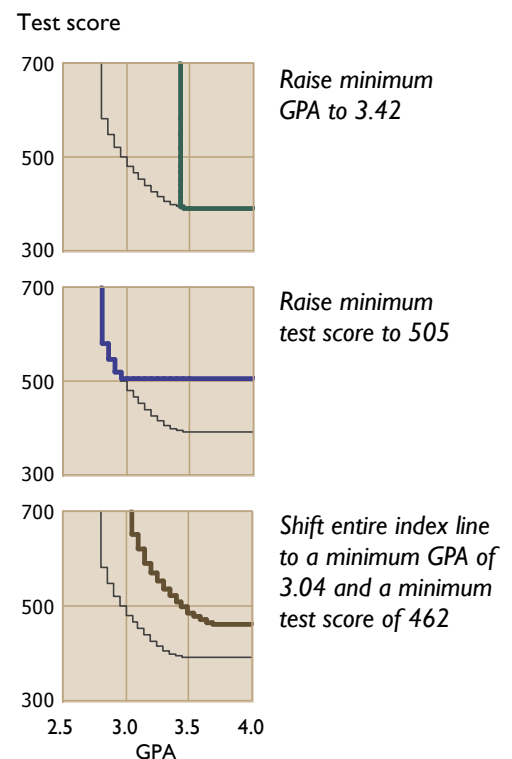
The scenarios

Because UC has three paths to eligibility, and each path has several different components, there are many ways that requirements could be made more stringent. To show the effect of individual components on the eligibility pool, the Commission examined three scenarios where the only change was to make the requirements for statewide eligibility more stringent by changing grade and test score requirements. No changes were made to the courses required, the method of calculating GPA, or to the number and type of tests required. The requirements for ELC and Eligibility by Examination Alone were left unchanged.

In the first scenario, the minimum GPA requirement is raised. On the graph, this change is shown by shifting the vertical part of the index line to the right. In the second scenario, the minimum test score required for admission is raised, shown graphically by moving the horizontal part of the index line upward. In the third scenario, the minimum GPA and the minimum test score are both raised, shifting the index line to the upper right.

For each scenario, the Commission used the data from the 2003 Eligibility Study to estimate the change in requirements needed to cut the overall eligibility rate to the Master Plan recommendation of 12.5%.

Scenarios for changes in eligibility requirements



Effect on racial and ethnic groups

The eligibility study data was used to assess the effect of these changes on the 2003 graduating class. Under all scenarios, the more stringent requirements affect African-American and Latino graduates more than Asian and White graduates. Raising the GPA requirement has the most moderate impact across ethnic groups. The eligibility rate for African Americans falls from 6.2% to 5.0% and the eligibility rate for Latino graduates falls by a similar amount (see table, next page).

Although the absolute change in the eligibility rate for African Americans may appear small—only 1.2 percentage points—it has a severe impact on eligible graduates. A more revealing measure of how each scenario affects ethnic groups is the percentage of eligible graduates who become ineligible when requirements are made more stringent.

Under the 2003 requirements, 1,500 African American graduates are eligible for UC. Of these, 300, or about 19 percent, would lose their eligibility when the floor on GPA is raised. Similar percentages for other ethnic groups are shown on the graph on page 2. About 17% of eligible Latinos would lose their

eligibility when the GPA requirement is raised, but only 13% of Whites and Asians would become ineligible.

Raising the test score requirement has a severe impact on African Americans. Over half of the graduates eligible in 2003 would lose their eligibility under this scenario. Impacts on Latinos and Asians are more moderate with about 20% of eligible Latino graduates and 15% of eligible Asian graduates becoming ineligible.

Eligibility rates under the three scenarios

	All graduates	African American	Asian	Latino	White
Eligible under 2003 requirements	14.4%	6.2%	31.4%	6.5%	16.2%
Minimum GPA raised to 3.42					
Remains eligible	12.4%	5.0%	27.3%	5.4%	14.1%
—Becomes ELC	r	—	r	r	—
—Becomes eligible by exam	r	—	0.2	—	—
Becomes ineligible	1.9	1.2	4.1	1.0	2.0
Minimum test score raised to 505					
Remains eligible	12.5%	2.9%	26.6%	5.2%	15.0%
—Becomes ELC	0.3	r	0.6	0.2	0.2
Becomes ineligible	2.0	3.3	4.5	1.2	1.2
Index line shifted to 3.04 minimum GPA					
Remains eligible	12.5%	3.7%	27.3%	5.3%	14.7%
—Becomes ELC	0.1	r	0.4	0.1	0.1
—Becomes eligible by exam	—	—	—	—	—
Becomes ineligible	1.9	2.5	3.9	1.2	1.5

Notes

r—Estimate is greater than zero, but rounds to zero.

Eligibility rates are rounded to the nearest 0.1%. Number of graduates are rounded to the nearest 100. Columns may not add because of independent rounding.

Differences of less than 0.2% in eligibility rates and less than 200 in the estimated number of graduates are not significant.

More details of results are on pages 12–15.

Number of graduates remaining eligible and becoming ineligible

	All graduates	African American	Asian	Latino	White
Eligible under 2003 requirements	48,400	1,500	15,200	7,400	23,100
Minimum GPA raised to 3.42					
Remains eligible	41,800	1,200	13,200	6,200	20,200
—Becomes ELC	r	—	r	r	—
—Becomes eligible by exam	100	—	100	—	—
Becomes ineligible	6,500	300	2,000	1,200	2,900
Minimum test score raised to 505					
Remains eligible	41,800	700	12,900	5,900	21,400
—Becomes ELC	900	r	300	200	300
Becomes ineligible	6,600	800	2,200	1,400	1,700
Index line shifted to 3.04 minimum GPA					
Remains eligible	42,000	900	13,200	6,000	21,000
—Becomes ELC	500	r	200	100	200
—Becomes eligible by exam	—	—	—	—	—
Becomes ineligible	6,300	600	1,900	1,400	2,100

Raising test scores affects White graduates less than raising the GPA requirement. This is the opposite of the effect on other ethnic groups, which are affected more by raising the test score requirement than by raising the GPA requirement. Some insight into the reason for this outcome is given by the graphs on page 9. The graphs show the grades and test scores of the graduates in the study sample who were Eligible in the Statewide Context. White graduates' test scores are clustered more tightly around the middle range than those for other racial and ethnic groups. As a result, only 7% of White graduates become ineligible when the floor on test scores is raised.

Shifting the entire Index Line has about the same affect on Latinos as raising the floor on GPA. For the other racial and ethnic groups, impacts lie between those of the other two scenarios.

Eligibility under other paths

Some graduates become eligible by another path when they lose their statewide eligibility as a result of the more stringent grade and test score requirements. The ELC program helps about 900 graduates retain their eligibility when the minimum test score is raised to 505. When the entire index line is shifted, about 500 graduates losing their statewide eligibility become ELC.

The ELC program is not a significant factor in retaining eligibility, because most of the graduates who are Eligible in the Statewide Context and who also meet the requirements for ELC are well away from the index line. These graduates—shown by the red dots on the graphs on page 9—are not affected when requirements are changed to reduce overall eligibility to 12.5%.

The main effect of the ELC program is to help Latinos and, to a lesser extent, Asians remain eligible when they lose their statewide eligibility. For example, when the floor on test scores is raised, about 200 Latino graduates, or about 3 percent of those eligible under the 2003 requirements, retain their eligibility because of ELC. The graphs show that, compared to Whites and African Americans, a higher proportion of Latinos and Asians who meet the requirements for ELC have low test scores and so are helped by the ELC program when requirements for statewide eligibility are made more stringent.

The ELC program is not particularly helpful to African Americans losing their statewide eligibility. Most of the African American graduates who are statewide eligible and also meet the requirements for ELC are well away from the floors on GPA and test scores.

Overlapping categories of eligibility

UC has three paths to eligibility, so some high school graduates may be eligible under two, or even all three, paths. For example, a graduate with the grades and test scores to be Eligible in the Statewide Context may be in the top 4% of his high school and also be Eligible in the Local Context.

Eligibility is usually reported in mutually exclusive categories as follows:

Eligible in the Statewide Context (ESC). This category consists of all graduates who meet the requirements for this path. Some of these graduates may also meet the requirements to be Eligible in the Local Context or Eligible by Examination Alone.

Eligible in the Local Context (ELC). This category consists of graduates who are not ESC, but who meet the requirements for Eligibility in the Local Context. Some of these graduates may meet the requirements for Eligibility by Examination Alone.

Eligible by Examination Alone. This category consists of graduates who are not ESC or ELC but who meet the requirements for Eligibility by Examination Alone.

Of the 14.4% of high school graduates eligible for UC in 2003, about 13.3% were ESC, 1% were ELC and about 0.1% were Eligible by Examination Alone.

Eligibility by Examination Alone has even less effect than the ELC program in allowing graduates to remain eligible. This path helps about 100 Asian graduates retain their eligibility when the floor on GPA is raised. The graph of the eligibility study data shows that, unlike other groups, there is a significant number of Asians in the sample with low GPAs but with test scores in the 600–800 range. Some of these—shown by blue dots—meet the requirements for Eligible by Examination Alone and retain their eligibility when the floor on GPA is raised.

UC’s paths to eligibility

To be *Eligible in the Statewide Context* (ESC), a student must have completed a required pattern of high school courses, known as the *a–g* requirements, with a sufficiently high grade point average (GPA).

The score needed on the SAT or ACT depends on the student’s GPA. The *Index Line* on the graph, right, shows this relationship. Students with a GPA of 3.5 or higher need an average score of 390. The stepped part of the Index Line shows how the required score increases as GPA decreases, reaching 580 for students with GPAs below 2.85. Students with a GPA below 2.8 are not eligible for admission.

In 2004, the University changed some of these requirements. A student’s GPA will be calculated differently and, effective for applicants entering in Fall 2007, the minimum GPA will be raised to 3.0.

Under *Eligibility in the Local Context* (ELC), high school juniors in the top 4% of their class are eligible, regardless of their test scores and senior year grades. These students must have completed 11 of the required 15 *a–g* units by the end of their junior year.

UC identifies these students by asking high schools to provide transcripts for the top 10–12% of their juniors. UC reviews the transcripts to check if the student has completed the required coursework and identify the top 4% according to UC’s criteria on how students should be ranked. Until 2004, juniors identified as ELC could be admitted without completing the courses required of ELC students.

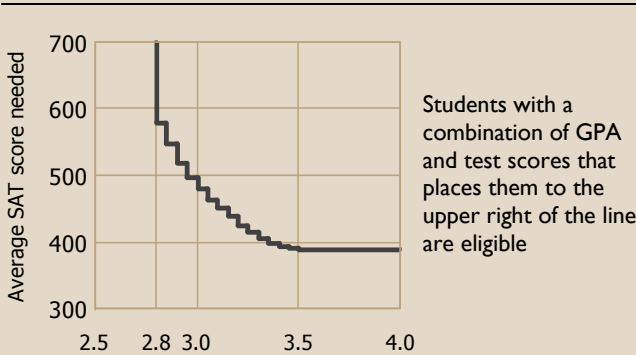
Under *Eligibility by Examination Alone*, a student without the required coursework is eligible with a

sufficiently high score on the SAT or ACT. The student must have an average SAT I score of 700 or an ACT score of 31, and have an average score of 586 in the three SAT II subject tests, with no score lower than 530.

Subject requirements

Subject	Years required	
a. History and social science	2	7 of these 15 units must be taken in the junior and senior years
b. English	4	
c. Mathematics	3	
d. Laboratory science	2	
e. Foreign language	2	
f. Visual and performing arts	1	
g. College preparatory electives	1	

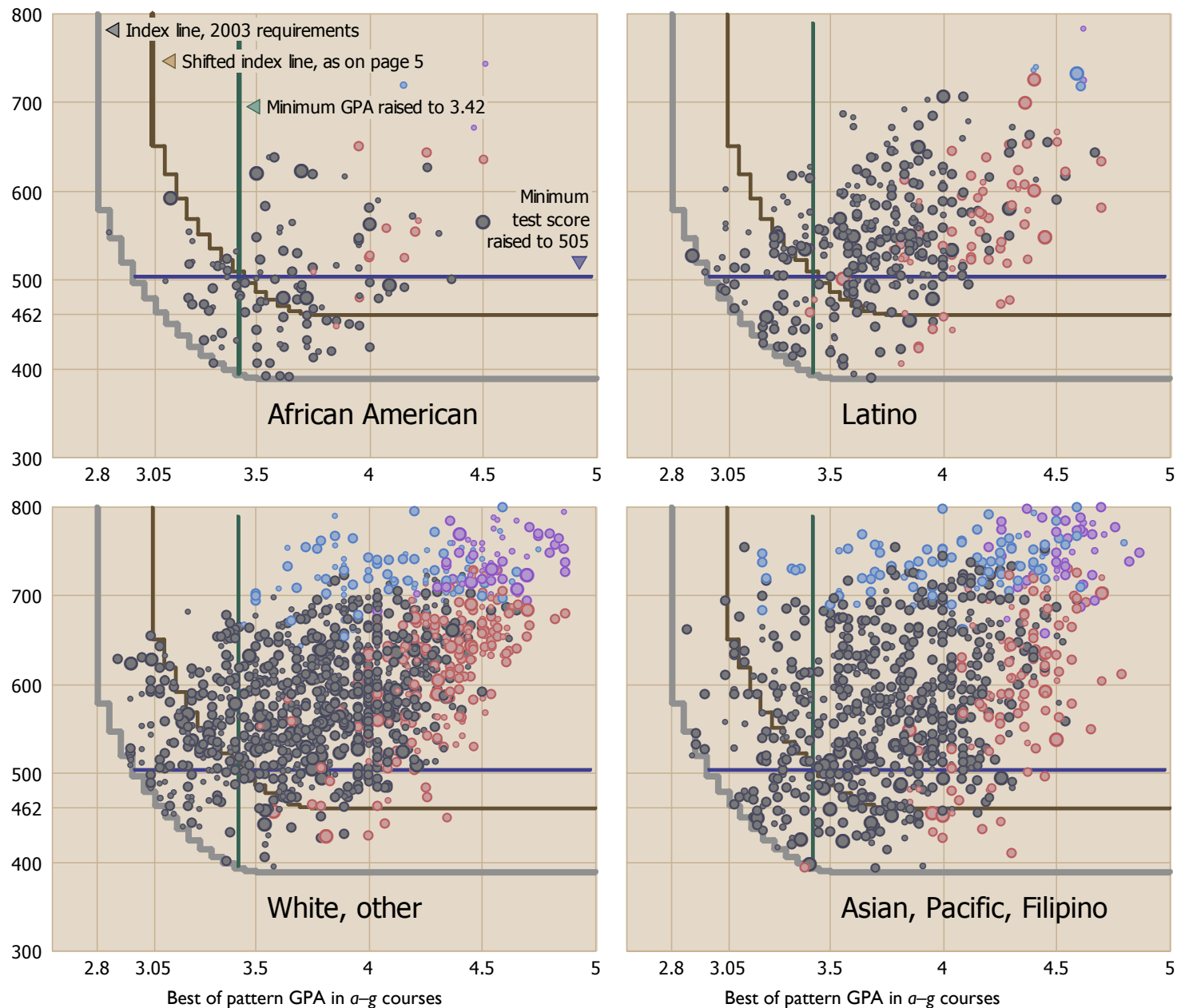
Index line for UC



A student’s average SAT score is defined as:
[SAT I math+verbal+2x(SAT II writing+SAT II math+3rd SAT II)]÷8
ACT scores can be converted to an SAT I equivalent.

Grades and test scores of eligible graduates

Average test score



Graphs show grade point average and average test score of graduates from the 2003 study sample who were Eligible in the Statewide Context.

Dot size is proportional to the sampling weight of each graduate in the eligibility study sample.

Graduates who are ELC but not otherwise eligible are not shown on the graphs.

Appendix A: Details of Analysis

The analysis in this report was done using data collected for the Commission's 2003 University Eligibility Study. The study estimated the proportion of California public high school graduates who meet the admission requirements of the California State University (CSU) and the University of California (UC).

The Eligibility Study was conducted by selecting a sample of public high schools and asking them to provide transcripts for their 2003 graduating class. The sample consisted of 48 schools with about 16,000 graduates. The schools were sampled in a way that ensured that the graduates in the sample were representative of all California public high schools. Details of how the schools were sampled are in Appendix B, page 16. UC and CSU admission staff reviewed each transcript to determine each graduate's eligibility. UC then provided the Commission with a file containing the information shown in the table, below left. The Commission estimated eligibility rates for UC from this data.

The scenarios

The scenarios for changing eligibility requirements were based on the GPA and test score data. The Commission estimated the changes in requirements needed to bring the overall eligibility rate down to 12.5%. For the first scenario, this was done by taking the graduates who were Eligible in the Statewide Context under the 2003 requirements and using each graduate's GPA and test scores to determine whether the graduate would still be eligible when the GPA requirement was raised.

Data from the 2003 Eligibility Study

UC provided the Commission with a file containing the following information for each of the 15,872 high school graduates in the study sample.

- Whether the graduate is eligible for UC.
- Whether the graduate meets the requirements to be Eligible in the Local Context (ELC).
- The reason for eligibility or ineligibility, such as whether the graduate had taken fewer than 7 of the required units in the junior and senior years.
- Number of units taken in courses meeting each of the *a–g* categories.
- The graduates *best-of-pattern* GPA as calculated by UC's rules.
- Scores on the ACT and SAT tests.
- The graduate's ethnicity and gender
- The graduate's high school.

The California State University provided a similar file with information applicable to eligibility for CSU.

Graduates who lost their statewide eligibility with this change were then checked against the requirements for ELC and Eligibility by Examination Alone to see if they could become eligible by another path. This new count of eligible graduates in the study sample was used to estimate the statewide eligibility rate. The floor on GPA was raised until the statewide rate fell to 12.5% or below.

A similar analysis was done to determine the change in GPA that has the same effect as UC's change to an all-courses GPA. This change reduced eligibility rates by 0.5 of a percentage point from the 2003 level, so the floor on GPA was raised until the eligibility rate was reduced by this amount.

The floor on test scores and the shift in the index line in the other two scenarios was estimated using a similar procedure. When the Index Line was shifted, a change of 0.1 in GPA was accompanied by a change of 30 points in the average test score needed. This means that as requirements become more stringent, the index line moves to the upper left parallel to the existing 2003 Index line. This limitation maintains the tradeoff between GPA and average test score embodied in the stepped part of the existing index line.

Estimating eligibility rates

Eligibility rates for each of the three scenarios were estimated from the count of eligible graduates in the sample in the same way as was done in the main Eligibility Study. The results of this step in processing are shown in *Statistical Results* on page 12. The study sample was limited to comprehensive high schools, so the statistical analysis of the sample results gives eligibility rates for comprehensive high schools. The results show, for example, that when the minimum tests score is raised to 505, 13.2% of graduates remain eligible under the same path as for the 2003 requirements, 2.1% become ineligible and 0.3% graduates lose their ESC eligibility but are still eligible because they meet the requirements for ELC.

Because of the way that the schools were sampled, transcripts from some schools must be weighted more than others when processing and interpreting the results. The eligibility rates on page 12 reflect the weighting of the study sample, so will differ from averages calculated from the counts of eligible graduates under each scenario. Because of this weighting, the graphs on page 9 are plotted with symbols proportional to the sampling weight of each graduate in order to give the correct visual impression.

In the state Master Plan for Higher Education and in the Commission's past eligibility studies, eligibility rates are defined as number of eligible graduates as a percentage of graduates of comprehensive high schools, continuation high schools, and alternative high schools. Eligibility rates consistent with this definition were estimated in the same way as in the main Eligibility Study. The steps in the calculation are as follows:

1. Estimate the eligibility pool for comprehensive high schools by applying the statistical results to a count of the number of graduates of comprehensive high schools.
2. Estimate the eligibility pool for Continuation and Alternative schools by assuming the eligibility rates for these schools is 0.3 times the eligibility rates for comprehensive high schools. The reasoning behind this step is discussed in more detail in the 2003 Eligibility Study Report.
3. Estimate the combined eligibility pool for all public high schools by adding the two eligibility pools together.
4. Estimate eligibility rates for all schools by dividing the combined pool by the total graduates of comprehensive high schools, continuation schools, and alternative schools.

The tables on pages 13–15 show the steps in the calculation. Continuation and Alternative schools account for a small proportion of eligible graduates, so the overall results are fairly insensitive to the assumption in step 2.

Statistical Results—Comprehensive high schools

		Estimated value (%)	Standard error	95% confidence range		Graduates in sample	Clusters
				Lower	Upper		
Minimum GPA raised to 3.42							
All ethnicities	Eligible by same path	13.5	1.4	10.6	16.3	2,695	53
	Becomes ELC	r	0.0	0.0	0.0	2	2
	Becomes eligible by exam	r	0.0	0.0	0.1	7	1
	Becomes ineligible	2.1	0.4	1.3	2.9	436	45
African American	Eligible by same path	5.7	0.8	4.1	7.4	149	29
	Becomes ELC	z	z	z	z	0	0
	Becomes eligible by exam	z	z	z	z	0	0
	Becomes ineligible	1.3	0.3	0.7	1.8	32	15
Asian, Pacific, Filipino	Eligible by same path	28.0	4.6	18.7	37.3	907	42
	Becomes ELC	r	0.0	0.0	0.1	1	1
	Becomes eligible by exam	0.3	0.3	0.0	0.8	7	1
	Becomes ineligible	4.2	1.4	1.4	6.9	140	25
Latino	Eligible by same path	6.0	0.5	5.0	7.0	371	46
	Becomes ELC	r	0.0	0.0	0.1	1	1
	Becomes eligible by exam	z	z	z	z	0	0
	Becomes ineligible	1.2	0.2	0.8	1.5	76	27
White, Middle East	Eligible by same path	15.3	1.2	12.9	17.7	1,221	47
	Becomes ELC	z	z	z	z	0	0
	Becomes eligible by exam	z	z	z	z	0	0
	Becomes ineligible	2.2	0.4	1.4	3.0	181	36
Minimum test score raised to 505							
All ethnicities	Eligible by same path	13.2	1.9	9.5	17.0	2,644	53
	Becomes ELC	0.3	0.1	0.2	0.4	59	21
	Becomes ineligible	2.1	0.2	1.7	2.6	437	44
African American	Eligible by same path	3.4	0.4	2.7	4.2	82	27
	Becomes ELC	0.1	0.0	0.0	0.2	3	3
	Becomes ineligible	3.5	0.8	1.9	5.1	96	23
Asian, Pacific, Filipino	Eligible by same path	27.0	6.8	13.3	40.7	877	42
	Becomes ELC	0.7	0.2	0.2	1.1	24	11
	Becomes ineligible	4.8	0.7	3.4	6.2	154	30
Latino	Eligible by same path	5.6	0.5	4.6	6.5	350	45
	Becomes ELC	0.2	0.1	0.1	0.4	17	11
	Becomes ineligible	1.4	0.2	1.0	1.8	81	26
White, Middle East	Eligible by same path	16.0	1.5	13.1	18.9	1,287	47
	Becomes ELC	0.2	0.1	0.1	0.4	15	11
	Becomes ineligible	1.3	0.2	1.0	1.6	100	33
Index line shifted to 3.04 minimum GPA							
All ethnicities	Eligible by same path	13.4	1.7	10.0	16.9	2,682	53
	Becomes ELC	0.2	0.0	0.1	0.2	31	15
	Becomes ineligible	2.1	0.2	1.6	2.5	427	45
African American	Eligible by same path	4.2	0.5	3.2	5.1	100	27
	Becomes ELC	r	0.0	0.0	0.1	1	1
	Becomes ineligible	2.8	0.7	1.4	4.3	80	21
Asian, Pacific, Filipino	Eligible by same path	28.0	6.1	15.7	40.2	911	42
	Becomes ELC	0.4	0.2	0.1	0.7	13	8
	Becomes ineligible	4.1	0.4	3.3	4.9	131	30
Latino	Eligible by same path	5.7	0.5	4.7	6.7	357	46
	Becomes ELC	0.1	0.1	0.0	0.3	9	6
	Becomes ineligible	1.3	0.2	1.0	1.7	82	26
White, Middle East	Eligible by same path	15.8	1.4	13.0	18.6	1,267	47
	Becomes ELC	0.1	0.0	0.0	0.2	8	6
	Becomes ineligible	1.6	0.2	1.2	2.0	127	33

The sample count was processed using PROC SURVEYMEANS in the SAS system. All categories had 50 degrees of freedom. Eligibility rates are rounded to the nearest 0.1%.

z—Estimate is zero because no graduates in the sample become eligible by this path.

r—Estimate is greater than zero, but rounds to zero.

Calculation of Eligibility Pool—Comprehensive high schools

		Percent of graduates	Standard error	Number of graduates	Standard error	95% confidence range	
						Lower	Upper
Minimum GPA raised to 3.42							
All ethnicities	Eligible by same path	13.5	1.4	41,600	4,350	32,800	50,300
	Becomes ELC	r	0.0	r	30	0	100
	Becomes eligible by exam	r	0.0	100	150	0	400
	Becomes ineligible	2.1	0.4	6,500	1,280	4,000	9,100
African American	Eligible by same path	5.7	0.8	1,200	180	900	1,600
	Becomes ELC	z	z	z	z	z	z
	Becomes eligible by exam	z	z	z	z	z	z
	Becomes ineligible	1.3	0.3	300	60	200	400
Asian, Pacific, Filipino	Eligible by same path	28.0	4.6	13,100	2,160	8,700	17,400
	Becomes ELC	r	0.0	r	20	0	100
	Becomes eligible by exam	0.3	0.3	100	120	0	400
	Becomes ineligible	4.2	1.4	2,000	640	700	3,200
Latino	Eligible by same path	6.0	0.5	6,200	510	5,200	7,200
	Becomes ELC	r	0.0	r	20	0	100
	Becomes eligible by exam	z	z	z	z	z	z
	Becomes ineligible	1.2	0.2	1,200	190	900	1,600
White, Middle East	Eligible by same path	15.3	1.2	20,100	1,590	16,900	23,300
	Becomes ELC	z	z	z	z	z	z
	Becomes eligible by exam	z	z	z	z	z	z
	Becomes ineligible	2.2	0.4	2,900	500	1,900	3,900
Minimum test score raised to 505							
All ethnicities	Eligible by same path	13.2	1.9	40,800	5,750	29,200	52,300
	Becomes ELC	0.3	0.1	900	160	600	1,200
	Becomes ineligible	2.1	0.2	6,600	700	5,200	8,000
	Becomes eligible by exam	0.1	0.0	r	10	0	0
African American	Eligible by same path	3.4	0.4	700	80	600	900
	Becomes ELC	0.1	0.0	r	10	0	0
	Becomes ineligible	3.5	0.8	800	170	400	1,100
	Becomes eligible by exam	0.1	0.0	r	10	0	0
Asian, Pacific, Filipino	Eligible by same path	27.0	6.8	12,600	3,180	6,200	19,000
	Becomes ELC	0.7	0.2	300	100	100	500
	Becomes ineligible	4.8	0.7	2,200	340	1,600	2,900
	Becomes eligible by exam	0.2	0.1	200	70	100	400
Latino	Eligible by same path	5.6	0.5	5,700	500	4,700	6,700
	Becomes ELC	0.2	0.1	200	70	100	400
	Becomes ineligible	1.4	0.2	1,400	190	1,100	1,800
	Becomes eligible by exam	0.2	0.1	200	70	100	400
White, Middle East	Eligible by same path	16.0	1.5	21,000	1,920	17,100	24,800
	Becomes ELC	0.2	0.1	300	90	100	500
	Becomes ineligible	1.3	0.2	1,700	210	1,300	2,100
	Becomes eligible by exam	0.2	0.1	200	70	100	400
Index line shifted to 3.04 minimum GPA							
All ethnicities	Eligible by same path	13.4	1.7	41,400	5,320	30,700	52,100
	Becomes ELC	0.2	0.0	500	110	300	700
	Becomes ineligible	2.1	0.2	6,300	630	5,100	7,600
	Becomes eligible by exam	0.2	0.0	r	10	0	0
African American	Eligible by same path	4.2	0.5	900	100	700	1,100
	Becomes ELC	r	0.0	r	10	0	0
	Becomes ineligible	2.8	0.7	600	150	300	900
	Becomes eligible by exam	0.2	0.0	r	10	0	0
Asian, Pacific, Filipino	Eligible by same path	28.0	6.1	13,000	2,850	7,300	18,800
	Becomes ELC	0.4	0.2	200	70	100	300
	Becomes ineligible	4.1	0.4	1,900	190	1,500	2,300
	Becomes eligible by exam	0.1	0.1	100	70	0	300
Latino	Eligible by same path	5.7	0.5	5,900	510	4,900	6,900
	Becomes ELC	0.1	0.1	100	70	0	300
	Becomes ineligible	1.3	0.2	1,400	180	1,000	1,800
	Becomes eligible by exam	0.1	0.1	100	70	0	300
White, Middle East	Eligible by same path	15.8	1.4	20,700	1,820	17,100	24,400
	Becomes ELC	0.1	0.0	200	60	0	300
	Becomes ineligible	1.6	0.2	2,100	270	1,600	2,600
	Becomes eligible by exam	0.1	0.1	100	70	0	300

When the minimum test score is raised, it is not possible for a graduate losing statewide eligibility to become Eligible by Examination Alone.

When the Index line is shifted, it is possible for a graduate losing statewide eligibility to become Eligible by Examination Alone. However, the estimate is zero because no graduates in the sample retained their eligibility in this way.

Calculation of Eligibility Pool—Continuation and alternative high schools

		Percent of graduates	Standard error	Number of graduates	Standard error	95% confidence range	
						Lower	Upper
Minimum GPA raised to 3.42							
All ethnicities	Eligible by same path	0.4	0.2	120	55	0	220
	Becomes ELC	r	0.0	r	0	0	0
	Becomes eligible by exam	r	0.0	r	0	0	0
	Becomes ineligible	0.1	0.0	r	9	0	40
African American	Eligible by same path	0.2	0.1	r	2	0	0
	Becomes ELC	z	z	z	z	0	z
	Becomes eligible by exam	z	z	z	z	0	z
	Becomes ineligible	r	0.0	r	0	0	0
Asian, Pacific, Filipino	Eligible by same path	0.8	0.4	r	7	0	20
	Becomes ELC	r	0.0	r	0	0	0
	Becomes eligible by exam	r	0.0	r	0	0	0
	Becomes ineligible	0.1	0.1	r	1	0	0
Latino	Eligible by same path	0.2	0.1	r	10	0	40
	Becomes ELC	r	0.0	r	0	0	0
	Becomes eligible by exam	z	z	z	z	0	z
	Becomes ineligible	r	0.0	r	2	0	0
White, Middle East	Eligible by same path	0.5	0.2	60	26	0	100
	Becomes ELC	z	z	z	z	0	z
	Becomes eligible by exam	z	z	z	z	0	z
	Becomes ineligible	0.1	0.0	r	4	0	20
Minimum test score raised to 505							
All ethnicities	Eligible by same path	0.4	0.2	100	54	0	220
	Becomes ELC	r	0.0	r	1	0	0
	Becomes ineligible	0.1	0.0	r	9	0	40
African American	Eligible by same path	0.1	0.1	r	1	0	0
	Becomes ELC	r	0.0	r	0	0	0
	Becomes ineligible	0.1	0.1	r	1	0	0
Asian, Pacific, Filipino	Eligible by same path	0.8	0.4	r	7	0	20
	Becomes ELC	r	0.0	r	0	0	0
	Becomes ineligible	0.1	0.1	r	1	0	0
Latino	Eligible by same path	0.2	0.1	r	9	0	40
	Becomes ELC	r	0.0	r	0	0	0
	Becomes ineligible	r	0.0	r	2	0	0
White, Middle East	Eligible by same path	0.5	0.2	60	28	0	120
	Becomes ELC	r	0.0	r	0	0	0
	Becomes ineligible	r	0.0	r	2	0	0
Index line shifted to 3.04 minimum GPA							
All ethnicities	Eligible by same path	0.4	0.2	120	55	0	220
	Becomes ELC	r	0.0	r	1	0	0
	Becomes ineligible	0.1	0.0	r	8	0	40
African American	Eligible by same path	0.1	0.1	r	2	0	0
	Becomes ELC	r	0.0	r	0	0	0
	Becomes ineligible	0.1	0.0	r	1	0	0
Asian, Pacific, Filipino	Eligible by same path	0.8	0.4	r	7	0	20
	Becomes ELC	r	0.0	r	0	0	0
	Becomes ineligible	0.1	0.1	r	1	0	0
Latino	Eligible by same path	0.2	0.1	r	9	0	40
	Becomes ELC	r	0.0	r	0	0	0
	Becomes ineligible	r	0.0	r	2	0	0
White, Middle East	Eligible by same path	0.5	0.2	60	27	0	100
	Becomes ELC	r	0.0	r	0	0	0
	Becomes ineligible	r	0.0	r	3	0	20

The standard error of eligibility rates for continuation and alternative schools is taken as being half of the estimated eligibility rate, which gives a lower 95% confidence limit of zero.

Calculation of Eligibility Rates—All high schools

		Percent of graduates	Standard error	Number of graduates	Standard error	95% confidence range	
						Lower	Upper
Minimum GPA raised to 3.42							
All ethnicities	Eligible by same path	12.4	1.3	41,700	4,350	33,000	50,400
	Becomes ELC	r	0.0	r	30	0	100
	Becomes eligible by exam	r	0.0	100	150	0	400
	Becomes ineligible	1.9	0.4	6,500	1,280	4,000	9,100
African American	Eligible by same path	5.0	0.8	1,200	180	800	1,600
	Becomes ELC	z	z	z	z	0	z
	Becomes eligible by exam	z	z	z	z	0	z
	Becomes ineligible	1.2	0.3	300	60	200	400
Asian, Pacific, Filipino	Eligible by same path	27.1	4.5	13,100	2,160	8,800	17,400
	Becomes ELC	r	0.0	r	20	0	0
	Becomes eligible by exam	0.2	0.3	100	120	0	300
	Becomes ineligible	4.1	1.3	2,000	640	700	3,300
Latino	Eligible by same path	5.4	0.5	6,200	510	5,200	7,200
	Becomes ELC	r	0.0	r	20	0	0
	Becomes eligible by exam	z	z	z	z	0	z
	Becomes ineligible	1.0	0.2	1,200	190	800	1,600
White, Middle East	Eligible by same path	14.1	1.1	20,200	1,590	17,000	23,300
	Becomes ELC	z	z	z	z	0	z
	Becomes eligible by exam	z	z	z	z	0	z
	Becomes ineligible	2.0	0.4	2,900	500	1,900	3,900
Minimum test score raised to 505							
All ethnicities	Eligible by same path	12.2	1.7	40,900	5,750	29,400	52,400
	Becomes ELC	0.3	0.1	900	160	600	1,200
	Becomes ineligible	2.0	0.2	6,600	700	5,200	8,000
African American	Eligible by same path	2.9	0.3	700	80	500	900
	Becomes ELC	r	0.0	r	10	0	0
	Becomes ineligible	3.3	0.7	800	170	500	1,100
Asian, Pacific, Filipino	Eligible by same path	26.0	6.6	12,600	3,180	6,300	19,000
	Becomes ELC	0.6	0.2	300	100	100	500
	Becomes ineligible	4.5	0.7	2,200	340	1,500	2,900
Latino	Eligible by same path	5.0	0.4	5,700	500	4,700	6,700
	Becomes ELC	0.2	0.1	200	70	100	300
	Becomes ineligible	1.2	0.2	1,400	190	1,000	1,800
White, Middle East	Eligible by same path	14.8	1.3	21,100	1,920	17,200	24,900
	Becomes ELC	0.2	0.1	300	90	100	500
	Becomes ineligible	1.2	0.2	1,700	210	1,300	2,100
Index line shifted to 3.04 minimum GPA							
All ethnicities	Eligible by same path	12.4	1.6	41,500	5,320	30,900	52,200
	Becomes ELC	0.1	0.0	500	110	300	700
	Becomes ineligible	1.9	0.2	6,300	630	5,100	7,600
African American	Eligible by same path	3.7	0.4	900	100	700	1,100
	Becomes ELC	r	0.0	r	10	0	0
	Becomes ineligible	2.5	0.6	600	150	300	900
Asian, Pacific, Filipino	Eligible by same path	26.9	5.9	13,000	2,850	7,300	18,700
	Becomes ELC	0.4	0.1	200	70	100	300
	Becomes ineligible	3.9	0.4	1,900	190	1,500	2,300
Latino	Eligible by same path	5.2	0.5	5,900	510	4,900	6,900
	Becomes ELC	0.1	0.1	100	70	0	200
	Becomes ineligible	1.2	0.2	1,400	180	1,000	1,800
White, Middle East	Eligible by same path	14.6	1.3	20,800	1,820	17,100	24,400
	Becomes ELC	0.1	0.0	200	60	100	300
	Becomes ineligible	1.5	0.2	2,100	270	1,600	2,600

Number of graduates affected is rounded to the nearest 100.

z—Estimate is zero because no graduates in the sample become eligible by this path.

r—Estimate is greater than zero, but rounds to zero.

Appendix B: Sampling Process

Data for the 2003 eligibility study was collected by selecting a sample of schools and asking these schools to transmit transcript data for their entire graduating class to UC's admissions office. This approach is a departure from previous eligibility studies, where the Commission wrote to every high school in the state asking for a sample of transcripts. Data was collected in this way to avoid the high cost to schools, the Commission, and the universities of selecting, handling, and reviewing paper transcripts.

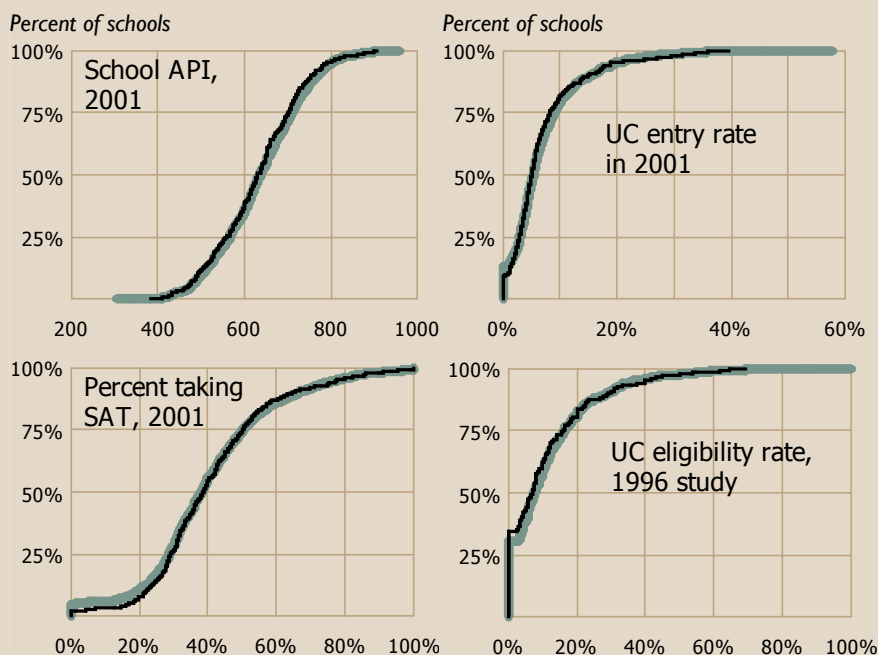
Collecting transcripts electronically means that much of the effort in the study is establishing contact with schools and making arrangements to transmit data. In this case, it is most economical to pick a sample of schools and ask for all transcripts from these schools, rather than to contact every high school in the state and ask for a sample of transcripts from each school.

Under this approach, it is critical that the schools in the sample are representative of all California high schools. UC's admission office was able to collect transcripts electronically from schools maintaining their student records using *SAS/ixp* and custom systems developed by Kern Union High School District and Los Angeles Unified School District. These schools account for about 40% of California public high school graduates.

The Commission, CSU, and UC conducted an extensive analysis comparing these schools with California public high schools as a whole. This analysis showed that these schools are representative of all California high schools. The graphs below show the distribution of several factors related to eligibility, such as the Academic Performance Index (API). The lines for the schools that could be sampled are very close to the lines for all high schools, indicating that the distributions are very similar.

School characteristics

Schools that could be sampled compared with all California high schools



The graphs show the cumulative distribution of school statistics related to eligibility. For example, the upper graph shows that about 30% of schools have APIs of 600 or below and that 95% of schools have APIs of 800 or below.

The lines for the schools that could be sampled are very close to the lines for all high schools, indicating that the distributions are very similar.

— Schools that could be sampled
— All comprehensive high schools

More information on the Commission's analysis comparing the schools that could be sampled compared with all California high schools is in the main Eligibility Study report.

The Commission also investigated the relationship between eligibility and other factors, such as the school's location, and found that, provided that there is adequate coverage of the range in schools' API, there is no need for special treatment of other factors.

The number of transcripts that could be reviewed was limited by the availability of university staff. The study sample consisted of about 16,000 transcripts from 48 schools. The sampling plan was designed to give the most accurate estimates of eligibility rates that were possible with this sample size. Schools were sampled in a way that ensured that the schools in the sample covered the range of school performance and to ensure that the graduates in the sample were representative of the entire 2003 graduating class. Details of the sampling plan are in the Commission's Eligibility Study report, published in May 2004.

In any study based on a sample, there is uncertainty in the results. The eligibility rates are estimates of an unknown true value that cannot be determined unless every transcript from the graduating class is reviewed. The estimates from the 2003 study have wider confidence ranges than those from previous eligibility studies, largely because the sample had to be drawn from a limited number of schools. However, the 2003 estimates are unlikely to be biased in either direction. The schools sampled are representative of all California high schools, so the estimated value is just as likely to be above the true value as it is to be below the true value. The figures in this report are estimated in the same way from the same sample of transcripts, so there is no reason to believe these figures underestimate or overestimate the true values of eligibility rates under the scenarios for tightening admission requirements.

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See www.cpec.ca.gov/eligibility for links to these reports

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